

REMARKS

With this response claims 2, 6, 12-14, 19-21, 60-68, 72-74, and 78 remain pending.

I. Withdrawn Rejections

Applicants thank the Examiner for withdrawing 35 U.S.C. § 112, 2nd paragraph and 35 U.S.C. § 102 rejections based on the arguments presented in the response to Office Action filed April 2, 2009. *See* Office Action at page 2.

II. Priority

Applicants acknowledge that the Examiner accords priority to U.S. Application No. 60/155,422, filed on September 23, 1999. *See e.g.*, Office Action at page 4.

III. Objections to the Specification

A. Priority Claim

The Examiner objected to the specification because "...On p. 1 of the instant specification there is a list of priority under 35 USC 119(e) of a number of US applications which have been denied priority... The specification should be amended to reflect the proper priority." Office Action at page 4. Applicants respectfully disagree with the Examiner's objection. Applicants submit that a priority claim reflects the priority to which an *application as a whole* is entitled, not merely the priority to which some selected claims are entitled. Indeed, Applicants have been previously been advised by the PTO Legal Administration that, in these situations, a priority claim should not be amended to comport with priority to which particular claims are entitled.¹

B. 35 U.S.C. § 132(a)-New Matter

The Examiner asserted that "[t]he amendment filed 4/02/2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure." Office Action at page 4. The Examiner argued that "[t]he added material which is not supported by the original disclosure

¹ Terry Dey, Office of Patent Legal Administration (571) 272-7730

is as follows: the specification length limitations as recited in US Patent No. 5608144, 4563417, 60/111990, 09/459109, and 09/459110.” *Id.* Applicants respectfully disagree. Applicants maintain that all of the patents and applications referred to by the Examiner were incorporated by reference in their entireties at the time of filing.

The Examiner argued that “09/459109 and 09/459110 have only been disclosed in the 1st paragraph with regard to priority.... Therefore there is no language in the specification which specifically ‘incorporates by reference’.” and that “[w]ith regard to application 60/111990.... there is no language in the specification which specifically ‘incorporates by reference’.” Office Action at pages 4-5. As noted above, the paragraph describing Applicants’ claim for priority need not be amended to reflect the priority accorded to the claims being examined. The priority claim on page 1, paragraph 1 recites U.S. Provisional Application No. 60/111,990 and U.S. applications 09/459,109 and 09/459,110 among applications “incorporated by reference herein in their entirety.” Indeed, Applicants have used the very words “incorporated ... by reference”, which are suggested by the patent regulations. *See e.g.*, 37 C.F.R. § 1.57(b)(1).

With regard to U.S. Patent No. 5,608,144, the Examiner acknowledges that page 19, lines 9-10 of the captioned application provides that “additional promoters that may be utilized are described, for example, in U.S. Patent Nos. ...5,608,144... all of which are herein incorporated in their entirety.” Office Action at page 5 (emphasis added).

With regard to U.S. Patent No. 4,563,417, the Examiner indicated that she “could not find any evidence of such a reference in the instant application.” *Id.* As such, the Examiner contended that “[t]herefore, there is no language in the specification which specifically ‘incorporates by reference’.” *Id.* Applicants have noticed that their response of April 2, 2009, alternately referred to this patent as 4,563,417 (on page 2) and 4,563,517 (on page 12). The correct patent number is 4,563,417, and Applicants apologize for any confusion this may have caused. Applicants respectfully direct the Office’s attention to the specification at page 7, lines 11-13, where it is stated that “chemical labels as disclosed in... US Patent 4,563,417... all of which are incorporated herein by reference to their entirety.” (emphasis added).

As such, based on the foregoing, Applicants respectfully disagree with the Examiner’s argument that “not all the claimed application numbers were ‘incorporated by reference’.” Office Action at page 6. Indeed, U.S. Application Nos. 60/111,990, 09/459,109, 09/459,110 and

U.S. Patent Nos. 5,608,144 and 4,563,417 were all specifically referred to using the root words recommended by 37 C.F.R. 1.57, namely “incorporate” and “reference.”

The Examiner went on to argue that “particular attention should be directed to specific portions of the referenced document where the subject matter being incorporated may be found.” Office Action at page 6. The Examiner further argued that “in the instant case, none of the cited patent applications are found in the section of the instant specification with regard to length limitations.” *Id.* However, the Examiner appears to impose requirement that is unsupported by law.

The law provides for incorporation by reference “for economy, amplification, or clarity of expression, by means of an incorporating statement clearly identifying the subject matter which is incorporated and where it is to be found.” *Application of Seversky*, 474 F.2d 671 (CCPA 1973). Indeed, for each document, Applicants have provided a proper incorporating statement including the root words “incorporate” and “reference.” In addition, Applicants have clearly identified the subject matter, namely the “entirety” of U.S. Application Nos. 60/111,990, 09/459,109, 09/459,110 and U.S. Patent Nos. 5,608,144 and 4,563,417. As such, Applicants have fulfilled the legal requirements to incorporate by reference the recited documents in their entireties.

In an analogous example, the Federal Circuit noted that when a patent is incorporated in its entirety, that patent becomes intrinsic evidence to the patents in suit. *Systems Division, Inc., v. Teknek LLC*, 59 Fed. Appx. 333 (Federal Circuit 2003). In the instant case, as in *Systems Division*, Applicants explicitly provided that the documents at issue are incorporated by reference in their entirety. As such, in the present case, at the time of filing, the documents which had been incorporated by reference effectively became part of the captioned application.

As such, based on the foregoing, Applicants respectfully submit that they have met the legal requirements to incorporate by reference and no further legal requirements may be imposed by the Patent Office. Applicants respectfully request withdrawal of this objection to the specification on the basis of new matter.

V. 35 U.S.C. § 112-New Matter

Claims 2, 6, 12-14, 19-21, 26, 60-78 were rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. The Examiner argued that “[b]ased upon the denial of the amendment to the specification ... the limitations in the claims with regard to at least 100 contiguous nucleotide residues, ... and at least about 500 contiguous nucleotide residues have been considered new matter.” Office Action at page 6. Applicants disagree and respectfully submit that this rejection has overcome by the foregoing arguments in the “Objections to the Specification” “35 U.S.C. § 132(a)-New Matter.” As such, Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

VI. 35 U.S.C. § 101-Utility

The Examiner stated that “[c]laims 22 (sic), 6, 12-14, 19-21, 26, 60-78 are rejected under 35 U.S.C. 101 because the claimed invention lacks a credible, substantial, specific or well-established utility.” Office Action at page 7. Applicants respectfully disagree.

Applicants submit that the present application has been awarded priority to U.S. Provisional Application No. 60/155,422, filed September 23, 1999 (the ‘422 application), which application was incorporated by reference in its entirety at the time of the filing the present application. The ‘422 application identified SEQ ID NO: 5272 (which is referred to as SEQ ID NO 9911 in the ‘422 application) as a COL2. Moreover, as shown by Attachment F provided with the April 2, 2009 Response to Office Action, G1988² and COL2 share greater than 44% homology at the protein level within the zinc finger domain. Indeed, it was known at the time of filing that a protein sequence identity even of 20-30% “may be used with confidence” in establishing homologous proteins.³ Moreover, in the present case, among the conserved amino acid residues are numerous cysteines, which are a common feature among certain classes of zinc finger proteins.

² As detailed in U.S. Patent Publication 2008/0010703, G1988 is a nucleic acid sequence that differs by a single nucleotide from the corresponding region of SEQ ID NO: 5272.

³ Steven E. Brenner *et al.*, “Assessing sequence comparison methods with reliable structurally identified distant evolutionary relationships”, *Proc. Natl. Acad. Sci. USA*, 95:6073-6078 (1998), listed as document AA1 on the accompanying PTO-1449.

As of the September 23, 1999, priority date of the captioned application, those skilled in the art were well aware that COL2 referred to a “CONSTANS-like gene” and showed significant homology to CONSTANS. CONSTANS has been identified as a putative zinc finger transcription factor affecting growth, namely, flowering. Based on sequence identity, a skilled artisan, at the time of the filing of the instant application, would understand that the claimed nucleic acid sequences, including SEQ ID NO: 5272, can be used to affect growth of transgenic plants. Indeed, Applicants’ specification notes that the disclosed nucleic acid sequences can be used to alter yield. *See e.g.*, specification at page 1, lines 17-21. Such specific, substantial, and credible utilities were provided at the time of filing the priority application.

In light of the annotation of SEQ ID NO: 5272 as a COL2, Applicants are unclear as to why the Examiner seems unwilling to accept that SEQ ID NO: 5272 encodes a COL2-like protein as indicated in Applicants’ September 23, 1999 priority document. The Examiner’s reluctance to accept Applicants’ asserted utilities contradicts established law. In fact, well-established law provides that utilities asserted in the specification must be accepted as factually sound unless the Patent Office cites information that undermines the credibility of the assertion. *In re Brana*, 51 F.3d 1560, 1566, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995). The Office has provided no evidence to undermine the credibility of using the claimed sequences to modify plants by altering COL2 expression.

The Examiner argued that “[t]he specification does not state whether nucleic acid molecule of SEQ ID NO. 5272 constitutes a complete open reading frame and does not identify the start and stop codons.” Office Action at page 8. The Examiner further argued that “[t]he specification also does not set forth a particular biological activity of SEQ ID No. 5272 nor does it describe any protein encoded by SEQ ID No. 5272.” *Id.* However, Applicants know of no legal requirement to set forth a complete open reading frame in order to establish utility.

In contrast to the Examiner’s arguments, the law suggests that the specification should disclose a utility such that “one skilled in the art can use a claimed discovery in a manner which provides some *immediate benefit to the public*.” *In re Fisher*, 421 F.3d at 1371 (emphasis in original). In the present case, at the time of filing, the public was empowered to use Applicants’ claimed nucleic acid molecules and plant cells to produce plants with altered flowering and

growth and increased yield. Applicants respectfully submit that such uses are of immediate benefit to the public and satisfy the legal requirement for utility.

In the present case, Applicants have provided specific, substantial, credible and well-established utilities for the claimed nucleic acid molecules and plant cells. As such, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 101.

VII. 35 U.S.C. § 112, First Paragraph-Enablement

Claims 2, 6, 12-14, 19-21, 26, 60-78 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. The Examiner stated that “claim(s) contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains... to make and... use the invention.” Office Action at page 17. Applicants disagree and respectfully point out that this rejection has overcome by the foregoing arguments regarding utility. As such, Applicants request withdrawal of this rejection.

CONCLUSION

In view of the above remarks, each of the presently pending claims is believed to be in condition for immediate allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections and objections and to pass this application to issue. The Examiner is encouraged to contact the undersigned at (202) 942-5325 should any additional information be necessary for allowance.

Respectfully submitted,



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